

CPEL0152713

Patent Office of the People's Republic of China

Address: Receiving Section of the Chinese Patent Office, No. 6 Tucheng Road West, Haidian District, Beijing, Postal code: 100088

OCT 04 2004

Applicant	SHARP KABUSHIKI KAISHA		Seal of Examiner	Date of Issue
Agent	China Patent Agent (H.K.) Ltd.			July 30, 2004
Patent Application No.	01133124.0	Application Date	August 11, 2001	Exam Dept.
Title of Invention	LIQUID CRYSTAL DISPLAY DEVICE AND DEFECT REPAIRING METHOD FOR THE SAME			

First Office Action

1. ☒ Pursuant to the provision of Article 35 (1) of the Chinese Patent Law, the examiner made an examination as to substance of the captioned patent application for invention upon the request for substantive examination filed by the applicant.
- ☐ Pursuant to the provision of Article 35 (2) of the Chinese Patent Law, the Chinese Patent Office has decided to conduct on its own initiative an examination as to substance of the captioned patent application for invention.
2. ☒ The applicant requests taking the filing date, August 11, 2000, at the JP Patent Office, the filing date, May 31, 2001, at the JP Patent Office, the filing date, _____, at the _____ Patent Office as the priority date of the present application.
- ☒ A copy of the first filed patent application certified by the receiving organ of the initial country of filing has been submitted by the applicant.
- ☐ A copy of the first filed patent application certified by the receiving organ of the initial country of filing has not been submitted by the applicant. Pursuant to the provision of Article 30 of the Chinese Patent Law, no priority right shall be deemed to have been claimed.
3. ☐ The applicant filed amended application document(s) on _____ and _____.
- ☐ Examination has confirmed that _____ filed on _____ cannot be accepted, _____ filed on _____ cannot be accepted,
- as the above amendment(s) ☐ is/are not in conformity with the provision of Article 33 of the Chinese Patent Law.
- ☐ is/are not in conformity with the provision of Rule 51 of the Implementing Regulations of the Chinese Patent Law.
- ☐ For the specific reason that the amendment(s) cannot be accepted, see the text of the Office Action.

4. ☒ The examination is conducted in the light of the original application document(s)
- ☐ The examination is conducted in the light of the following application document(s):
in the original application documents submitted on the filing date:
Claim(s) _____, page(s) _____ of the description, Figure(s)
of the drawing(s); Claim(s) _____, page(s) _____ of the description,
Figure(s) _____ submitted on _____; Claim(s) _____, page(s)
of the description, Figure(s) _____ submitted on _____
- ☐ Abstract of the description submitted on _____.
5. ☐ The present Office Action has been prepared without a search having been conducted.
- ☒ The present Office Action has been prepared with a search having been conducted.
- ☒ The following reference document(s) is/are cited in this Office Action (its/their serial number(s) will, continue to be used throughout the examination procedure):

No.	Number or Title of Document	Date of Publication (or filing date of interfering application)
1	CN 1246632A	(Date) March 8, 2000
2	WO 00/22677A1	(Date) April 20, 2000
3		(Date)
4		
5		
6		

6. The concluding comments of the examiner are:

- ☒ On the description:
- ☐ The content of the application comes within the scope where no patent right is granted as provided in Article 5 of the Patent Law.
- ☐ The description is not in conformity with the provision of Article 26(3) of the Patent Law.
- ☒ The drafting of the description is not in conformity with the provision of Rule 19 of the Implementing Regulations.
- ☒ On the claims:
- ☐ Claim comes within the scope where no patent right is granted as provided in Article 25 of the Patent Law.
- ☐ Claim is not in conformity with the definition of invention in Rule 2(1) of the Implementing Regulations.
- ☐ Claim _____ does not possess novelty as provided in Article 22(2) of the Patent Law.
- ☒ Claim 10, 11 does not possess inventiveness as provided in Article 22(3) of the Patent Law.
- ☐ Claim _____ does not possess practical applicability as provided in Article 22(4) of the Patent Law.
- ☐ Claim _____ is not in conformity with the provision of Article 26(4) of the Patent

Law.

☐ Claim _____ is not in conformity with the provision of Article 31(1) of the Patent Law.

☒ Claim 9 is not in conformity with the provisions of Rules 20-23 of the Implementing Regulations.

☐ Claim _____ is not in conformity with the provision of Article 9 of the Patent Law.

☐ Claim _____ is not in conformity of the provision of Rule 12(1) of the Implementing Regulations.

For specific analyses of the above concluding comments, see the text of this Office Action.

7. In view of the above concluding comments, the examiner holds that:

☐ The applicant should amend the application document in accordance with the requirements raised in the text of this Office Action. The amended document(s) should be submitted in duplicate and should conform to the provisions of Article 33 of the Patent Law and Rule 51 of the Implementing Regulations of the Chinese Patent Law.

☒ The applicant should expound in his Observations the reasons why the captioned patent application is patentable and amend the places not conforming to regulations as pointed out in the text of the Office Action, otherwise it would be impossible for the patent right to be granted.

☐ The captioned patent application contains no substantive content for which the patent right may be granted, thus if the applicant has not advanced his reasons or has not done so adequately, the application will be rejected.

8. The applicant should pay attention to the following matters:

(1) In accordance with the provision of Article 37 of the Patent Law, the applicant should submit his/its Observations within **four** months from the date of receipt of this Office Action; if, without any justified reason, the time limit for making response is not met, the application will be deemed to have been withdrawn.

(2) The amendments made by the applicant to his application should conform to the provision of Article 33 of the Patent Law, the amended text should be in duplicate and the format should conform to the relevant provisions of the Guidelines for Examination.

(3) The applicant's Observations or amended text should be mailed or presented to the Receiving Section of the Chinese Patent Office. Document not mailed or presented to the Acceptance Section have no legal force.

(4) Without making an appointment, the applicant and/or agent may not come to the Chinese Patent Office to hold an interview with the examiner.

9. This Office Action consists of the text portion totalling 3 page(s) and of the following annex(es):

☒ 2 duplicate copies of the reference document(s) cited totalling 33 page(s).

☐

☐

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First Office Action

The application relates to a liquid crystal display device and defect repairing method for the same. Through examination, the following examination opinions are now provided:

1. Claim 10 has no inventiveness prescribed in Art. 22, para. 3 of the Patent Law.

Claim 10 claims a liquid crystal display device. Ref. 1 (CN1246632A) discloses a liquid crystal display device, wherein the following technical features are disclosed (see claims 1 and 2): the liquid crystal display device comprising a first substrate; a second substrate; a liquid crystal layer interposed between the first substrate and the second substrate; pixel region for producing a display; a first electrode provided on the first substrate facing the liquid crystal layer, the first electrode includes pixel electrodes arranged in a matrix (equivalent to the picture element electrode stated in claim 10); said pixel region having a plurality of sub electrode regions. Thus, the difference between claim 10 and ref. 1 is: a switching element electrically connected to the element electrode, and the element electrode includes a plurality of sub-picture element electrodes electrically connected to the switching element in parallel.

Ref. 2 (WO00/22677A1) discloses a method for fabrication of devices comprising arrays of semiconductor imaging pixels or liquid crystal cells, wherein (see page 1, line 10 to page 3, line 28 of the description and the abstract) it is disclosed that the pixels of LCD (i.e. liquid crystal display device) are divided into a plurality of sub-regions (equivalent to the sub-picture element electrodes of claim 1); and all sub-regions are provided with the same signal, a plurality of sub-regions are electrically connected in parallel. Thus, when a defect is present in one sub-region, normal display can be provided through other sub-regions in that region, thus the point defects in the liquid crystal display device can be repaired. Although ref. 2 has not definitely indicated that a plurality of sub-regions are electrically connected to the switching element in parallel, the switching element is the most commonly-used part in a liquid display device, particularly an active matrix liquid crystal display device. Thus, those skilled in the art can obviously conceive that a plurality of sub-regions are electrically connected to the switching element in parallel. Thus, ref. 2 has given the technical teaching of dividing the pixels into a plurality of sub-regions, thereby removing the point defects by keeping other normal sub-regions from being affected by the sub-region in which a defect is present. Ordinary persons skilled in the art can easily obtain the technical solution claimed in claim 10 on the basis of ref. 1 and in

combination with ref. 2, thus claim 10 has no prominent substantive features and notable progress over refs. 1 and 2, which is not in conformity with the provision of Art. 22, para. 3 of the Patent Law on inventiveness.

2. Claim 11 has no inventiveness prescribed in Art. 22, para. 3 of the Patent Law.

Claim 11 claims a defect repairing method for a liquid crystal display device. Ref. 1 (CN1246632A) and in combination with ref. 2 (WO00/22677A1) disclose the liquid crystal display device involved in the defect repairing method of claim 11 (see the comments on claim 1). Besides, ref. 2 further points out that (see the abstract) a region is subdivided into a plurality of sub-regions, which are electrically connected in parallel. If a defect is present in the region, it makes the sub-region having the defect inoperable (equivalent to electrically disconnecting), while other normal sub-regions continue to function (i.e. keeping electrical connection). Thus, ref. 2 has disclosed a defect repairing method of electrically disconnecting the sub-region in which a defect is present while keeping other sub-regions in electrical connection. Thus, ordinary persons skilled in the art can easily obtain the technical solution claimed in claim 11 on the basis of ref. 1 and in combination with ref. 2, thus claim 11 has no prominent substantive features and

notable progress over refs. 1 and 2, and so has no inventiveness prescribed in Art. 22, para. 3 of the Patent Law.

3. Claim 9 is not in conformity with the provision of Rule 20, para. 1 of the Implementing Regulations of the Patent Law.

In claim 9, the meaning, particularly in the underlined portion, of the statement “electrically disconnecting the specified sub-picture ... by cutting off a contact portion connected to the specified sub-picture element electrode among the plurality of contact portions” is unclear, resulting in the protection scope of claim 9 not clearly stated, which is not in conformity with the provision of Rule 20, para. 1 of the Implementing Regulations of the Patent Law.

4. The following defects exist in the description:

(1) (This sub-item relates to expressions in the Chinese version---the agent's note).

(2) In page 37, lines 1-2 of the description, the drawing ref. sign 200a in “active matrix substrate (hereinafter referred to as the TFT substrate) 200a” does not appear in the corresponding Fig. 4, which is not in conformity with the provision of Rule 19, para. 3 of the Implementing Regulations of the Patent Law.

(3) (This sub-item relates to expressions in the Chinese version---the agent's note).

Thus, no patent right can be granted to the application at present. The applicant should amend the claims and state the reasons why the claims have inventiveness over the reference documents within the time limit for response specified in the Office Action; besides, the above defects should be overcome.

When amending the application documents, the applicant should note the provision of Art. 33 of the Patent Law, i.e. any amendments shall not exceed the scope of the disclosure contained in the initial application text. When submitting the amended substitute sheets, the applicant should submit the marked amendment copy, and clearly state the addition, deletion or amendment marked on said copy.

If the application still has the above defects after the amendments and/or observations, it will be rejected according to Art. 38 of the Patent Law.

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中华人民共和国国家知识产权局

邮政编码: 100032

北京市西城区金融街 27 号投资广场 B 座 19 层

中国专利代理(香港)有限公司

陈景峻

申请号: 01133124.0

发文日期:



申请人:

夏普公司

发明名称:

液晶显示装置及其疵点修复方法

第一次审查意见通知书

0152713

陈

1. ☒ 依申请人提出的实审请求, 根据专利法第 35 条第 1 款的规定, 审查员对上述发明专利申请进行实质审查。

☐ 根据专利法第 35 条第 2 款的规定, 国家知识产权局决定自行对上述发明专利申请进行审查。

2. ☒ 申请人要求以在:

JP 专利局的申请日 2000 年 8 月 11 日 为优先权日,

JP 专利局的申请日 2001 年 5 月 31 日 为优先权日,

 专利局的申请日 为优先权日,

 专利局的申请日 为优先权日,

☒ 申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。

14 DEC 2004

☐ 申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本, 根据专利法第 30 条的规定视为未提出优先权要求。

3. ☐ 申请人于 年 月 日和 年 月 日提交了修改文件。

经审查, 其中: 年 月 日提交的 不符合实施细则第 51 条的规定;

 年 月 日提交的 不符合专利法第 33 条的规定。

4. ☒ 审查是针对原始申请文件进行的。

☐ 审查是针对下述申请文件进行的:

说明书 申请日提交的原始申请文件的第 页;

 年 月 日提交的第 页; 年 月 日提交的第 页;

 年 月 日提交的第 页; 年 月 日提交的第 页;

权利要求 申请日提交的原始申请文件的第 项;

 年 月 日提交的第 项; 年 月 日提交的第 项;

 年 月 日提交的第 项; 年 月 日提交的第 项;

附图 申请日提交的原始申请文件的第 页;

 年 月 日提交的第 页; 年 月 日提交的第 页;

 年 月 日提交的第 页; 年 月 日提交的第 页;

说明书摘要 ☐ 申请日提交的;

☐ 年 月 日提交的;

摘要附图 ☐ 申请日提交的;

☐ 年 月 日提交的。

5. ☐ 本通知书是在未进行检索的情况下作出的。

☒ 本通知书是在进行了检索的情况下作出的。

☒ 本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用):

21301

2002.1



回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收

(注: 凡寄给审查员个人的信函不具有法律效力)



中华人民共和国国家知识产权局

编号	文件号或名称	公开口期 (或抵触申请的申请日)
1	CN 1246632A	2000.3.8
2	WO 00/22677A1	2000.4.20
3		
4		

6. 审查的结论性意见:

☒ 关于说明书:

- ☐ 申请的内容属于专利法第 5 条规定的不授予专利权的范围。
- ☐ 说明书不符合专利法第 26 条第 3 款的规定。
- ☐ 说明书不符合专利法第 33 条的规定。
- ☒ 说明书的撰写不符合实施细则第 19 条的规定。

☒ 关于权利要求书:

- ☐ 权利要求____不具备专利法第 22 条第 2 款规定的新颖性。
- ☒ 权利要求 10, 11 不具备专利法第 22 条第 3 款规定的创造性。
- ☐ 权利要求____不具备专利法第 22 条第 4 款规定的实用性。
- ☐ 权利要求____属于专利法第 25 条规定的不授予专利权的范围。
- ☐ 权利要求____不符合专利法第 26 条第 4 款的规定。
- ☐ 权利要求____不符合专利法第 31 条第 1 款的规定。
- ☐ 权利要求____不符合专利法第 33 条的规定。
- ☐ 权利要求____不符合实施细则第 2 条第 1 款关于发明的定义。
- ☐ 权利要求____不符合实施细则第 13 条第 1 款的规定。
- ☒ 权利要求 9 不符合实施细则第 20 条至第 23 条的规定。

上述结论性意见的具体分析见本通知书的正文部分。

7. 基于上述结论性意见, 审查员认为:

- ☐ 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。
- ☒ 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。
- ☐ 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。
- ☐

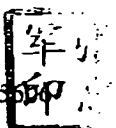
8. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的 肆 个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和/或修改文本应邮寄或递交给国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

9. 本通知书正文部分共有 3 页, 并附有下列附件:

- ☒ 引用的对比文件的复印件共 2 份 33 页。 ☐

审查 5 部 6 室

审查员签章: 

完成日期: 2004-07-15

21301
2002.8



回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收
(注: 凡寄给审查员个人的信函不具有法律效力)

第一次审查意见通知书正文

本申请涉及一种液晶显示装置及其疵点修复方法。经审查, 现提出如下审查意见。

1、权利要求 10 不具有专利法第 22 条第 3 款规定的创造性

权利要求 10 请求保护一种液晶显示装置。对比文件 1 (CN1246632A) 公开了一种液晶显示装置, 其中(具体参见权利要求 1 和 2)披露了如下技术特征: 该液晶显示装置包括第一基板; 第二基板; 设置在第一基板与第二基板之间的液晶层; 用于进行显示的像素区; 设置在第一基板上且面向液晶层的第一电极, 第一电极包括排成矩阵形式的像素电极(相当于权利要求 10 中所述的图像元素电极); 所述像素区包括多个子像素区。可见, 权利要求 10 与对比文件 1 之间的区别在于: 还包括与元素电极电连接的开关元件, 并且元素电极包括多个与开关元件平行电连接的子图像元素电极。

对比文件 2 (WO00/22677A1) 公开了一种包括半导体成像像素或液晶单元阵列的装置的制造方法, 其中(参见说明书第 1 页第 10 行至第 3 页第 28 行及摘要)披露了将 LCD (即液晶显示装置) 的像素分成多个子区域(相当于权利要求 1 中的子图像元素电极); 并且使所有子区域供给相同信号, 多个子区域平行电连接。从而, 当一个子区域存在缺陷时, 可通过该区域中其他子区域提供正常显示, 因此可修复液晶显示装置中的点缺陷。尽管对比文件 2 并未明确指出, 多个子区域与开关元件平行电连接。不过, 开关元件是液晶显示装置, 特别是有源矩阵液晶显示装置中常采用的部件。由此, 本领域技术人员显然可以想到, 多个子区域与开关元件平行电连接。可见, 对比文件 2 给出了将像素分割成多个子区域, 并且通过使有

缺陷子区域不对其他正常子区域带来影响，从而消除点缺陷的技术启示。本领域普通技术人员在对比文件 1 的基础上结合对比文件 2，易于得出权利要求 10 请求保护的技术方案，权利要求 10 相对于对比文件 1 和 2，不具有突出的实质性特点和显著进步，不符合专利法第 22 条第 3 款规定的创造性。

2、权利要求 11 不具有专利法第 22 条第 3 款规定的创造性

权利要求 11 请求保护一种用于液晶显示装置的疵点修复方法。对比文件 1（CN1246632A）结合对比文件 2（WO00/22677A1）公开了权利要求 11 疵点修复方法中涉及的液晶显示装置（具体参见对权利要求 1 的评述）。此外，对比文件 2（具体见摘要）中还指出，将区域分成多个平行电连接的多个子区域，如果存在故障区域，则将有故障的子区域失效（即相当于电断开），同时使其他正常子区域继续可以起作用（即保持电连接）。可见，对比文件 2 披露了通过将故障子区域电断开同时保持其他子区域电连接的疵点修复方法。由此，本领域普通技术人员在对比文件 1 的基础上结合对比文件 2，易于得出权利要求 11 请求保护的技术方案，权利要求 11 相对于对比文件 1 和对比文件 2 不具有突出的实质性特点和显著进步，不具有专利法第 22 条第 3 款规定的创造性。

3、权利要求 9 不符合专利法实施细致第 20 条第 1 款的规定

权利要求 9 中“把所确定的子图像元素电极与开关元件电断开，同时通过切断接触部分与多个接触部分中确定的子图像元素电极之间的连接，而使多个子图像元素电极中的至少一个电极与开关元件之间仍保持电连接”，特别是带下划线的部分，所表述的含义不清楚，造成权利要求 9 没有清楚地表述请求保护的范围，不符合专利

法实施细则第 20 条第 1 款的规定。

4、说明书中存在的问题：

(1) 在说明书中（如说明书第 15 页倒数第 1、2 段，第 16 页第 2 段，等等（并未一一列出）），有时称“开孔 14a”，有时又写作“开孔 14”，并且将图像元素电极称作“图像元素电极 14”，存在相同技术特征附图标记不一致的缺陷，不符合专利法实施细则第 19 条第 3 款的规定。申请人应当对说明书全文进行仔细核查，逐一克服该缺陷。

(2) 说明书第 14 页第 25 行“有源矩阵基底（以下称作 TFT 基底）200a”，附图标记 200a 在所对应的图 4 中并未出现，不符合专利法实施细则第 19 条第 3 款的规定。

(3) 说明书第 1 页倒数第 3 行中存在打字错误，“显示 2”似应该为“显示器”。

因此，本申请目前不能被授予专利权。申请人应当在本通知书规定的答复期限内，对权利要求进行修改并陈述权利要求相对对比文件具有创造性的理由。同时克服上述其他缺陷。

申请人在修改申请文件时，应充分注意专利法第 33 条的规定，即任何修改均不得超出原始申请文本的范围。申请人在提交修改替换页的同时，须提交修改标记页，清楚标明所进行的增加、删除或修改。

如果经修改和/或意见陈述后，本申请依然存在上述缺陷，则依照专利法第 38 条的规定，本申请将被驳回。

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